

Weather update HALO-(AC)³

Friday, 2022-03-25, 09:00 LT

Surface wind development and precipitation

2022-03-24 12 UTC: 48 – 96h

ECMWF

2022-03-25 00 UTC: 36 – 84h

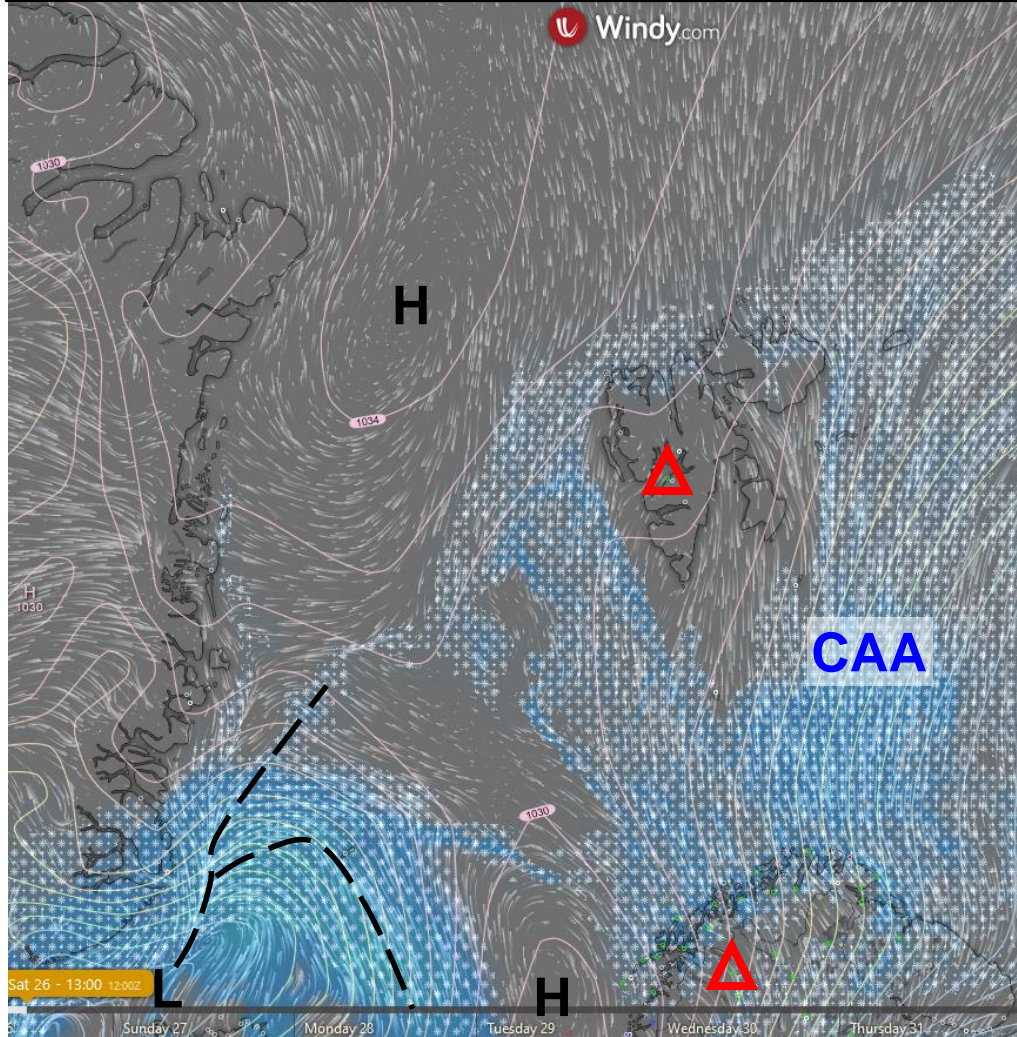
ICON

CAA: Cold Air Advection

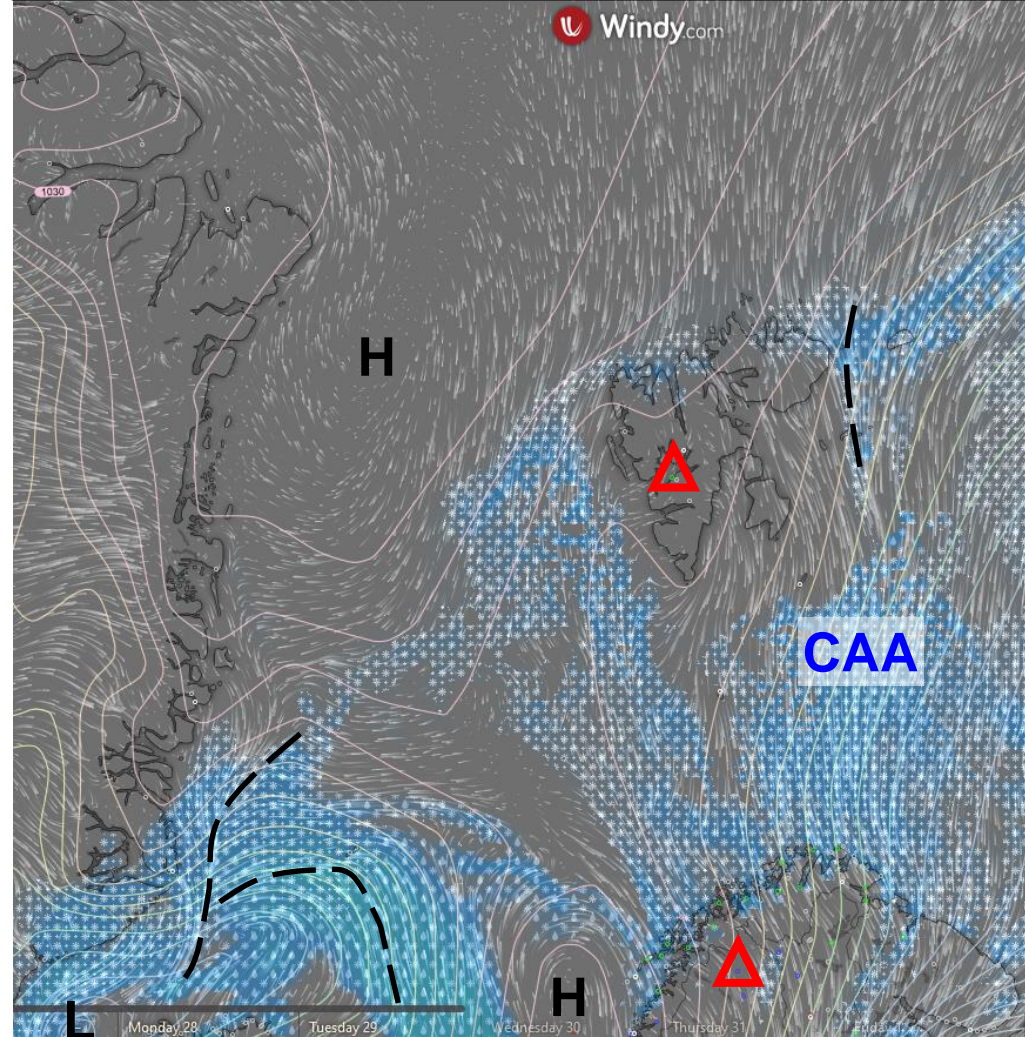
WAA: Warm Air Advection

Saturday, 2022-03-26 12 UTC

ECMWF (y12)

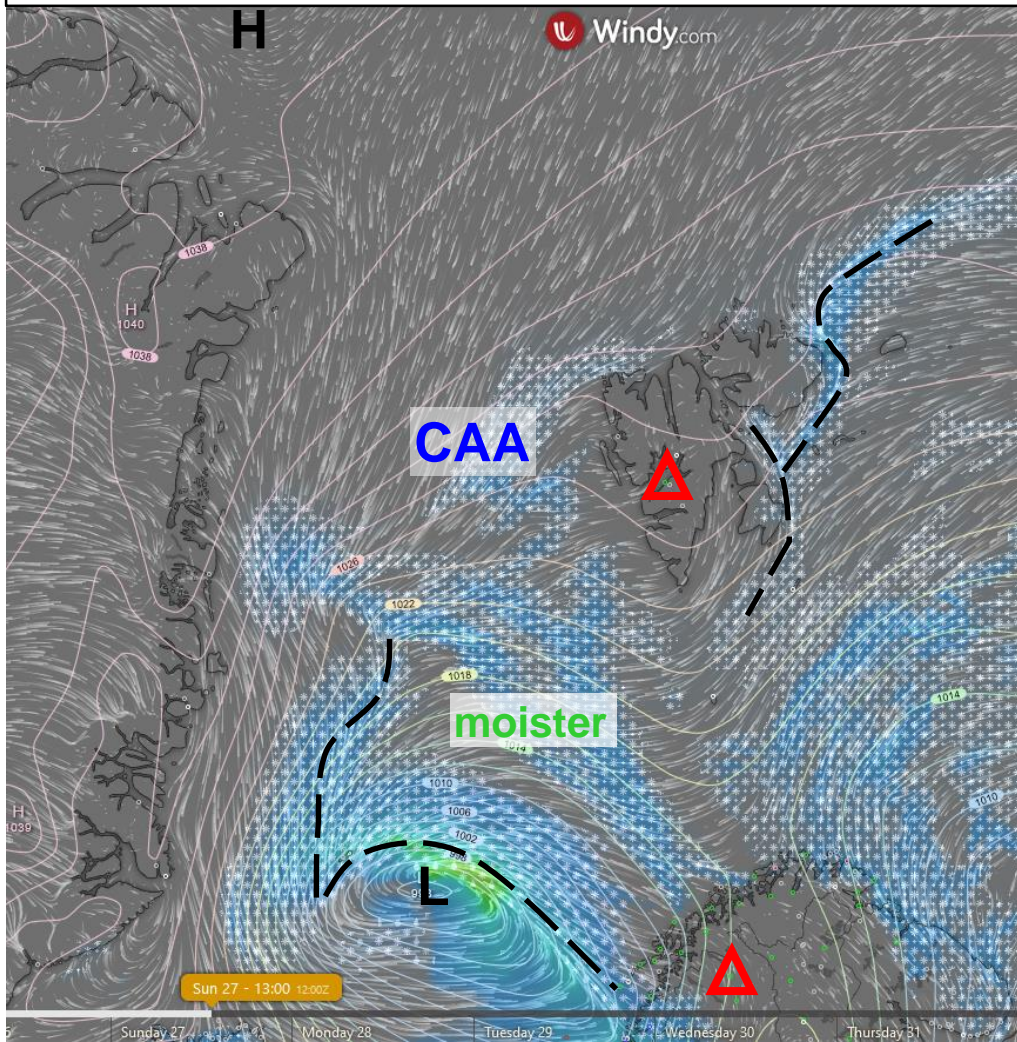


ICON (t00)

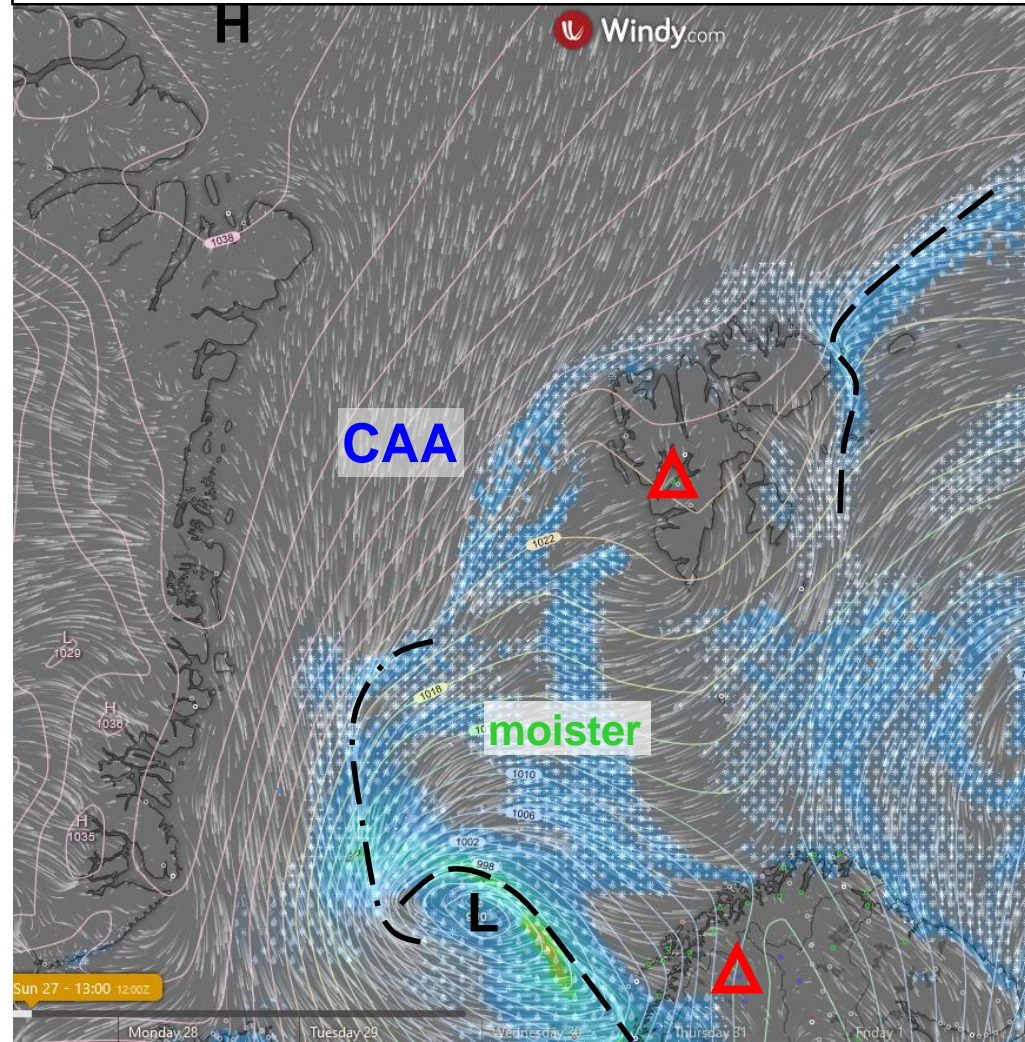


Sunday, 2022-03-27 12 UTC

ECMWF (y12)

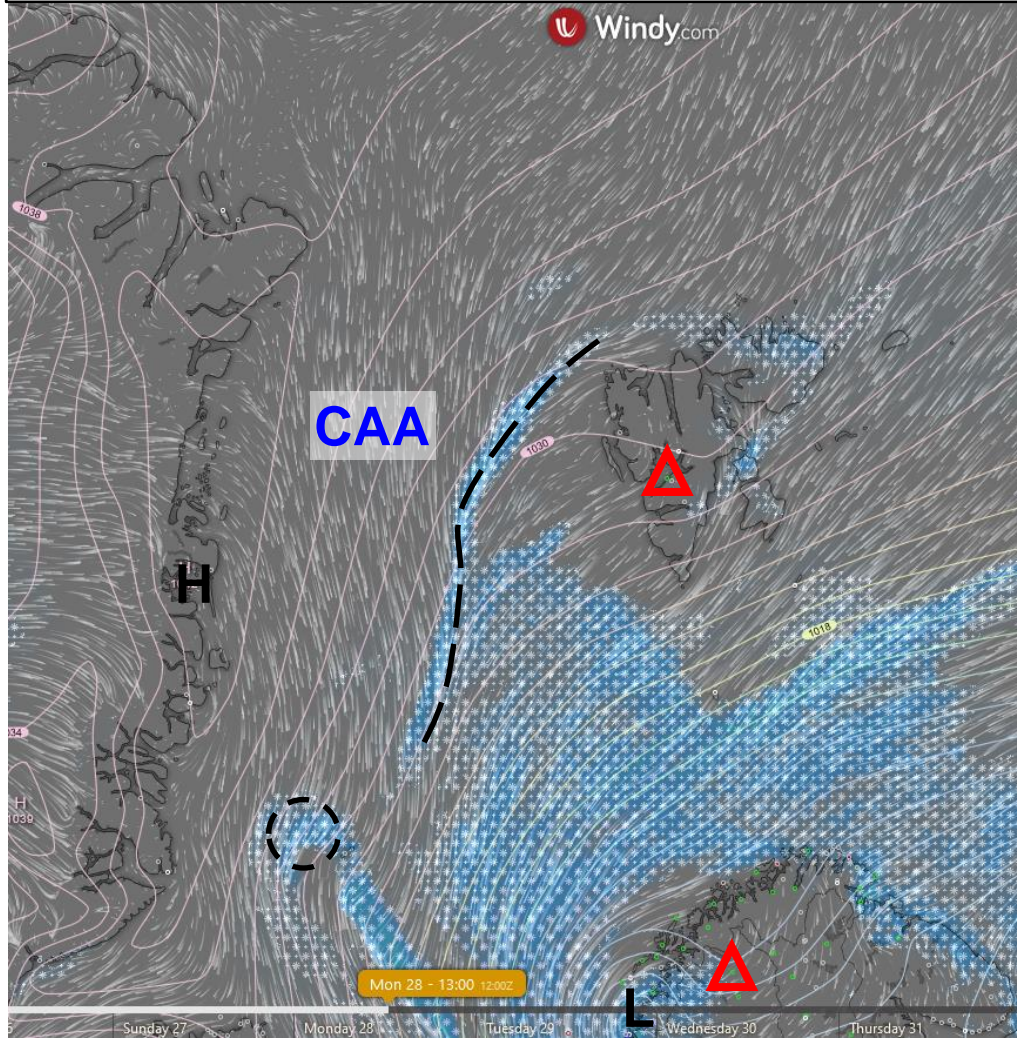


ICON (t00)

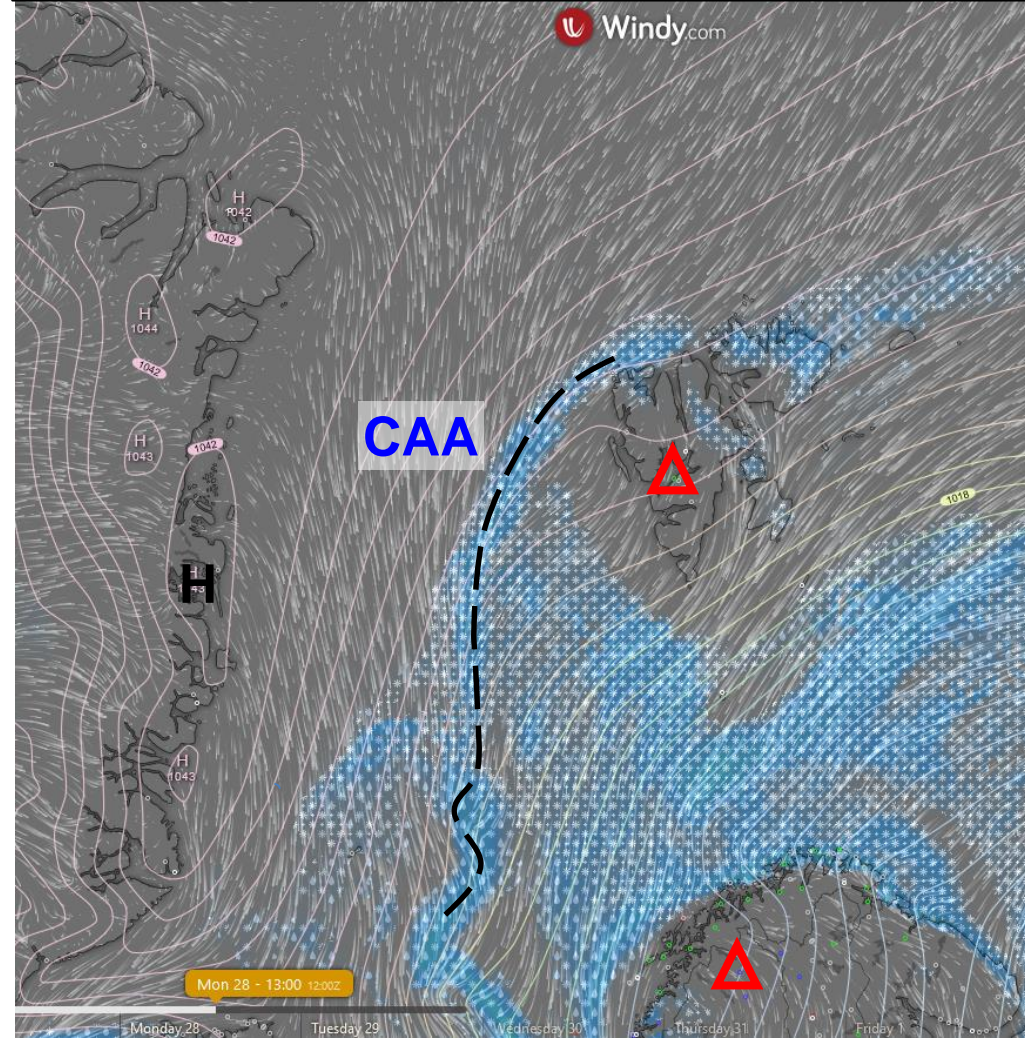


Monday, 2022-03-28 12 UTC

ECMWF



ICON

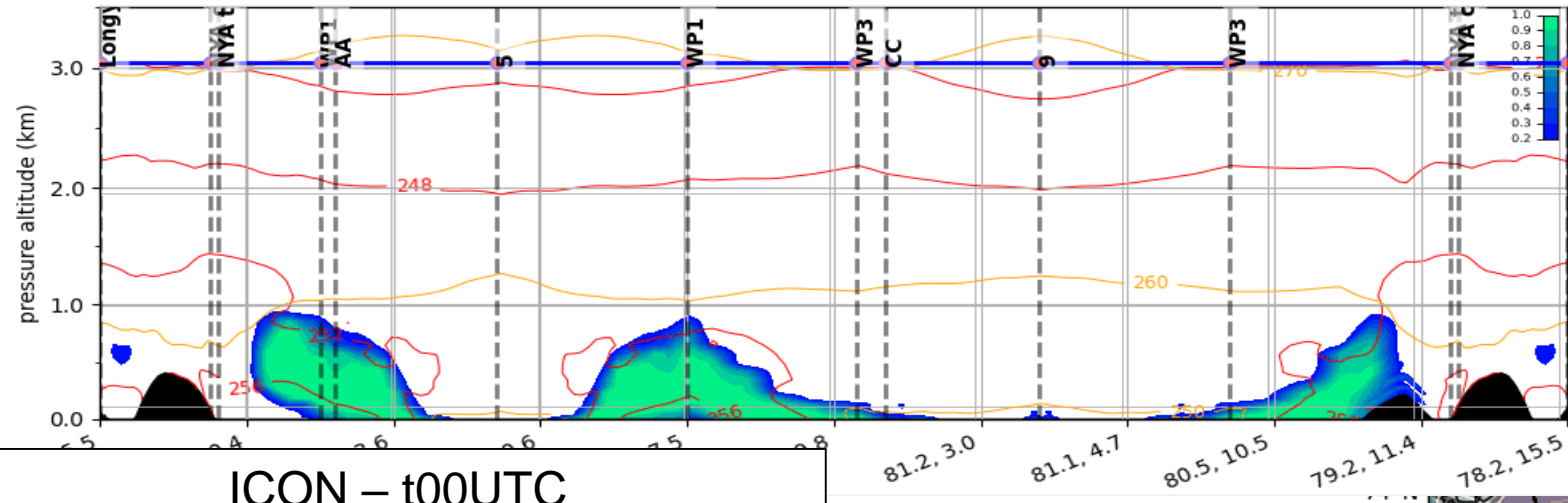


Cloud cross-sections: Flight Track P5
ECMWF & ICON

Saturday, 2022-03-26 10 UTC, Clouds

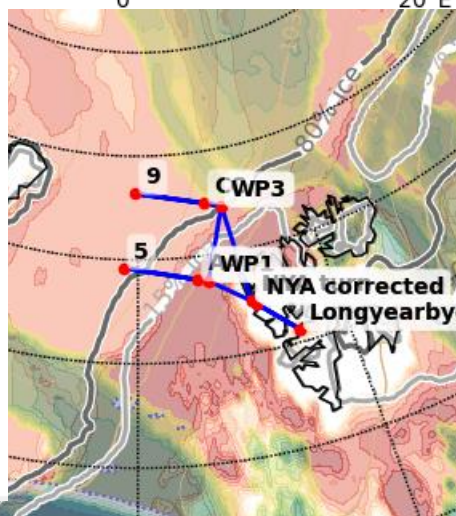
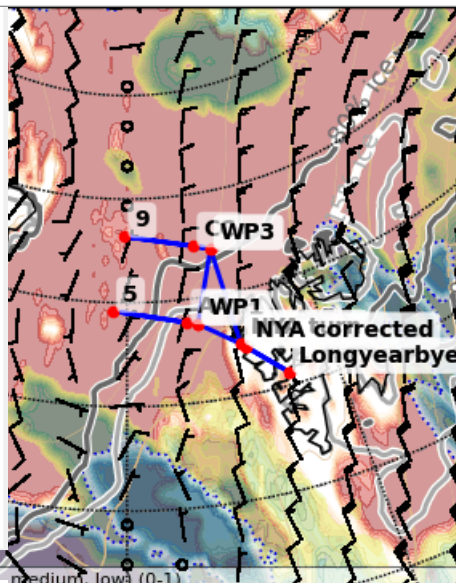
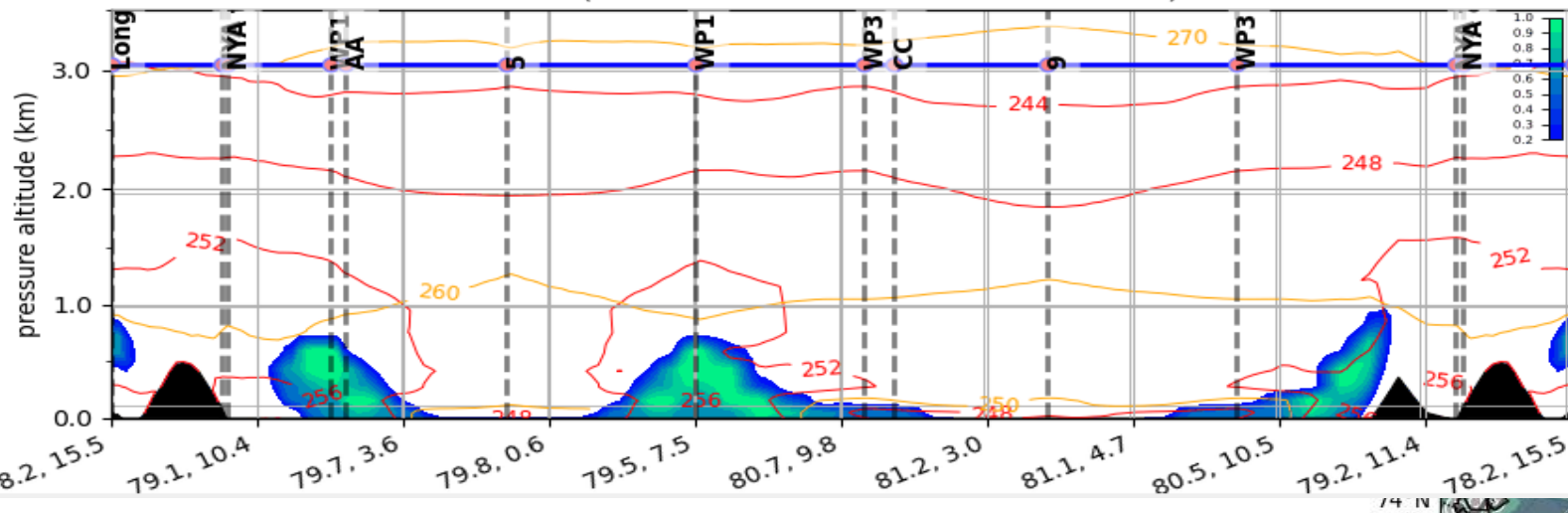
ECMWF – 12 UTC

Cloud Cover (0-1) Vertical Section
Valid: 2022-03-26T12:00:00Z (initialisation: 2022-03-24T12:00:00Z)



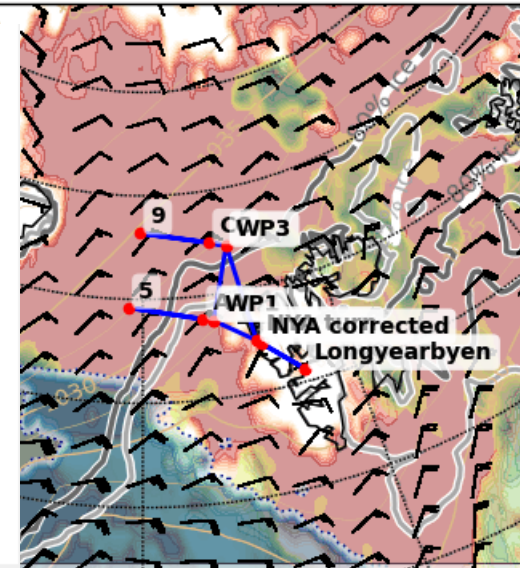
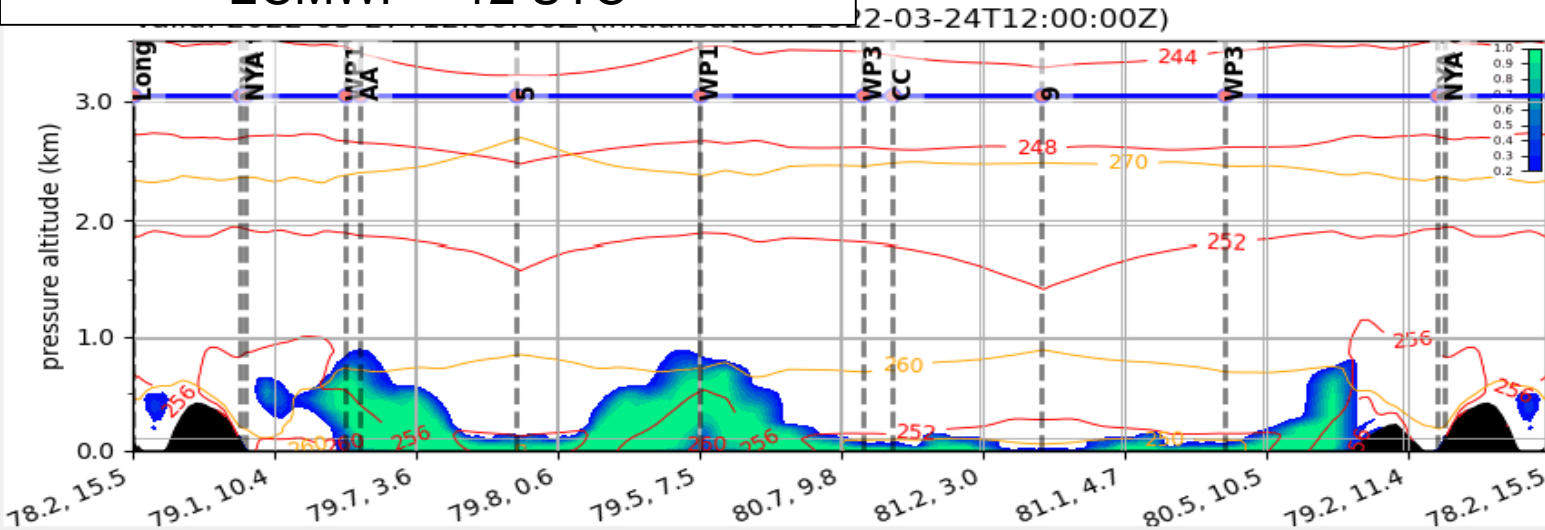
ICON – t00UTC

Cloud Cover (0-1) Vertical Section
Valid: 2022-03-26T12:00:00Z (initialisation: 2022-03-25T00:00:00Z)



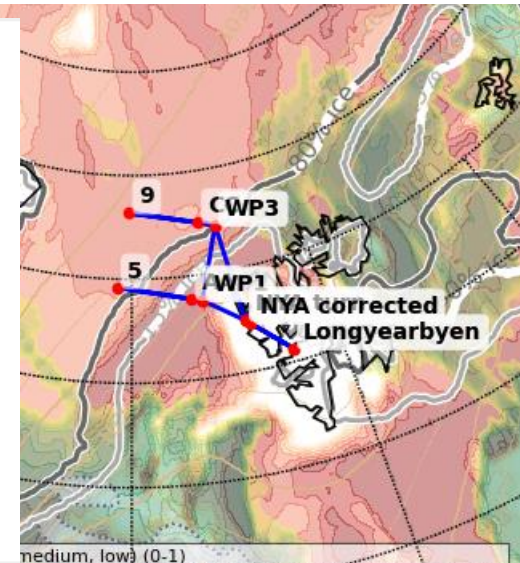
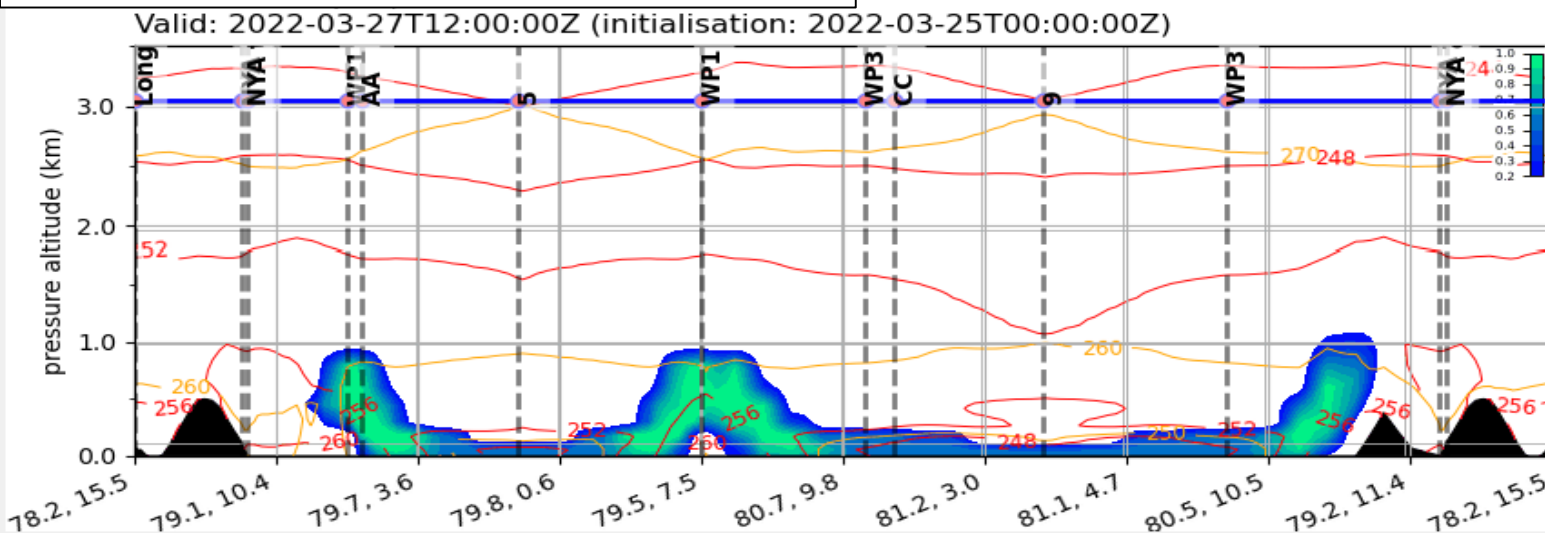
Sunday, 2022-03-27 12 UTC, Clouds

ECMWF – 12 UTC



ECMWF cloud cover (high, medium, low) (0-1)
 Valid: Sun 2022-03-27 12:00 UTC (step: 72 hrs from Thu 2022-03-24 12:00 UTC)
 20°W 0° 20°E

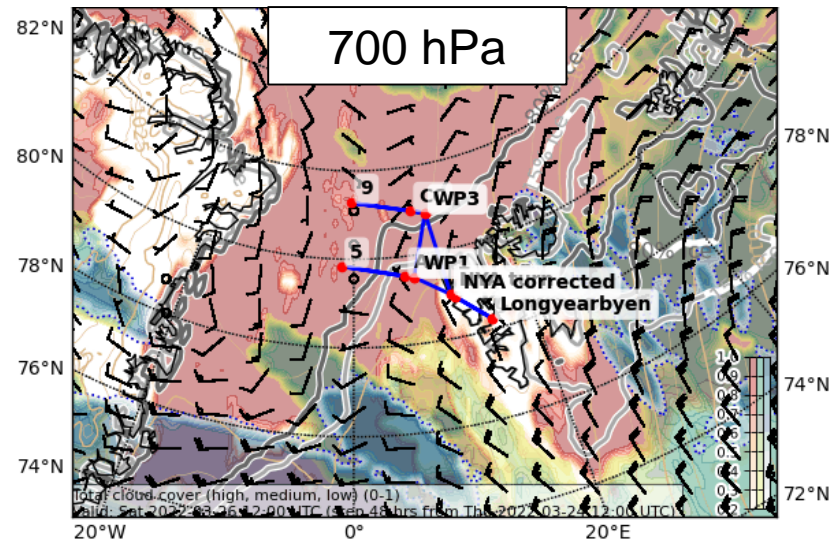
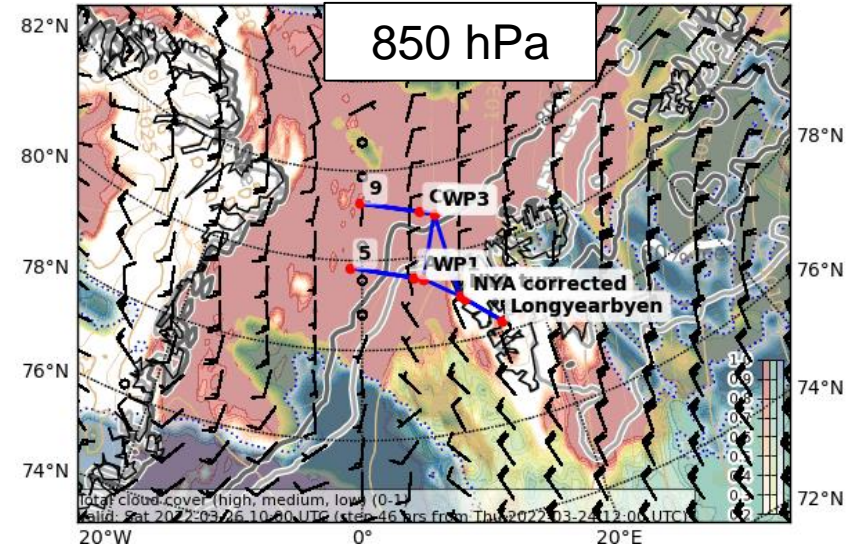
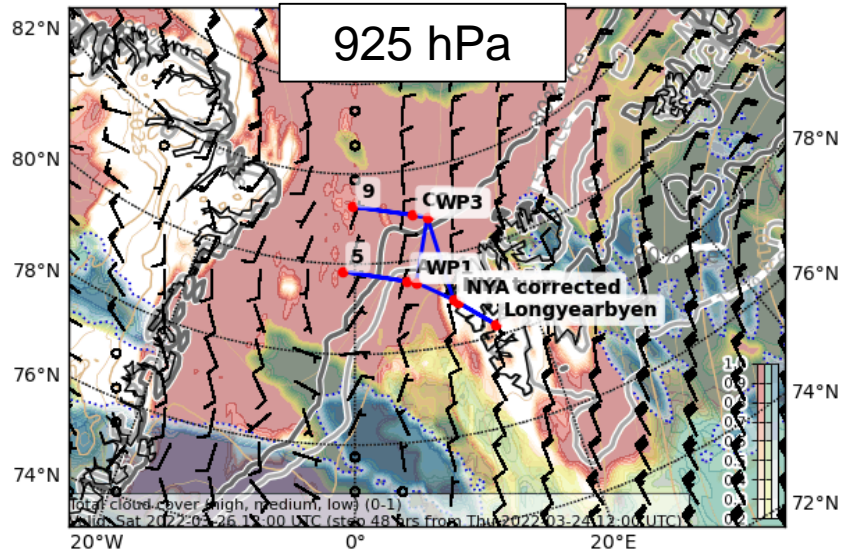
ICON – t00UTC



medium, low) (0-1)

Saturday, 2022-03-26 12 UTC Total Cloud Cover and horizontal wind (925, 850, 700 hPa)

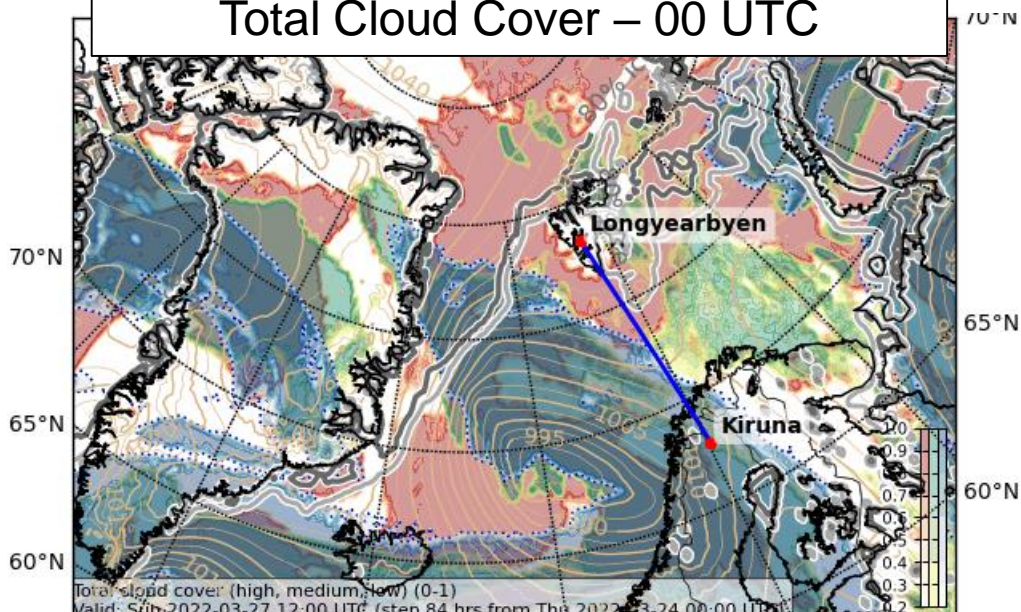
ECMWF – 12 UTC



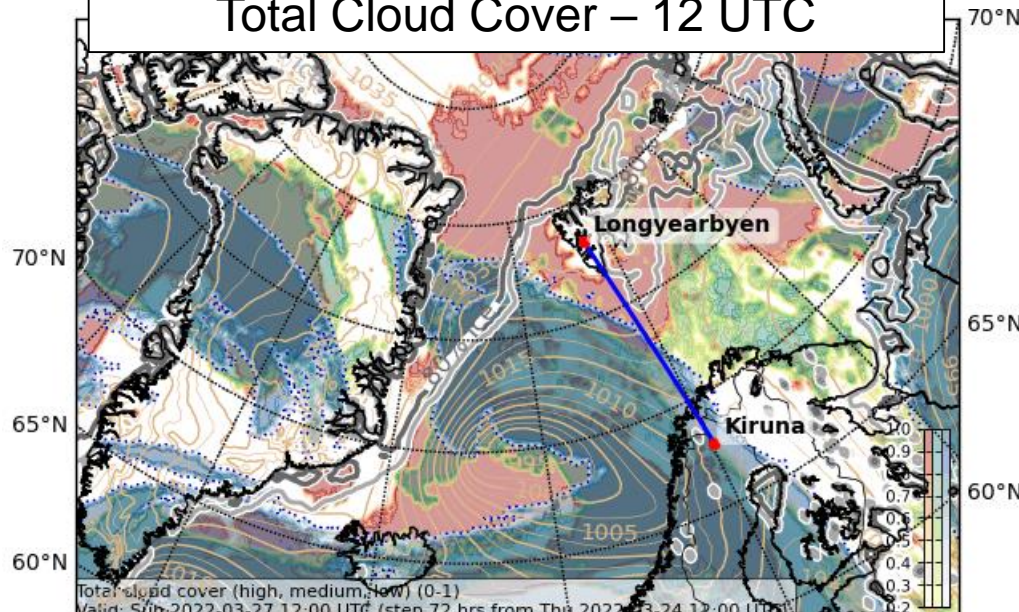
Forecast comparison (TCC, ThetaE850hPa)
ECMWF
2022-03-24 00 UTC and 12 UTC

Sunday, 2022-03-27 12 UTC

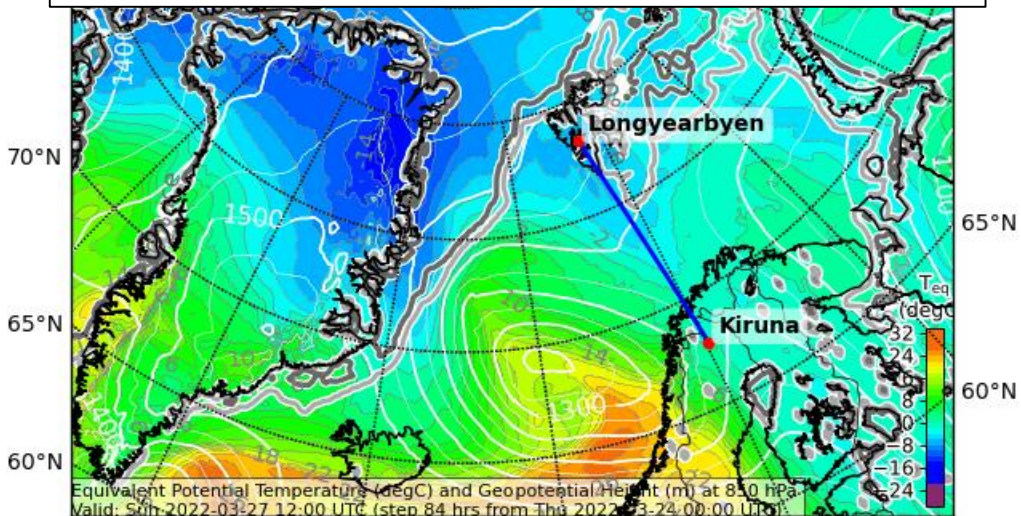
Total Cloud Cover – 00 UTC



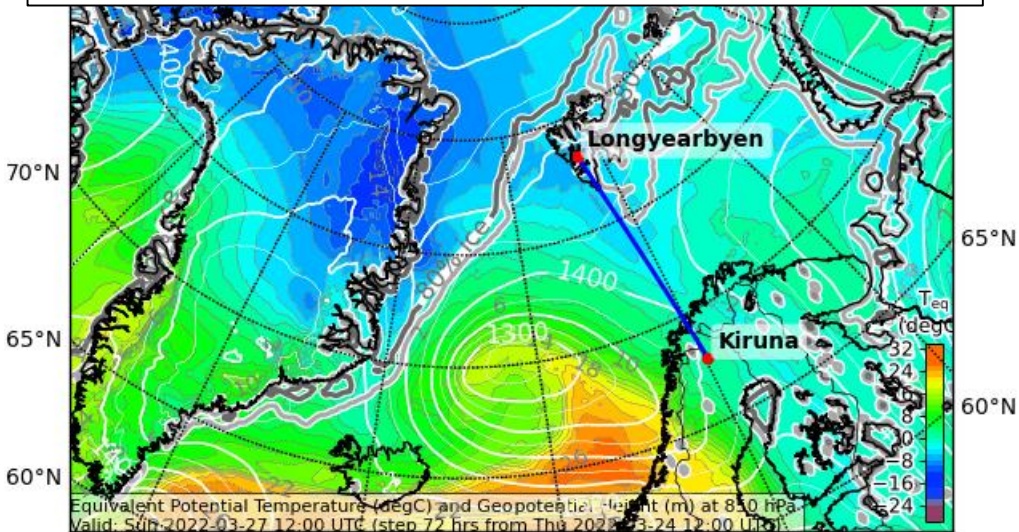
Total Cloud Cover – 12 UTC



850 hPa Equ. pot. Temperature – 00 UTC

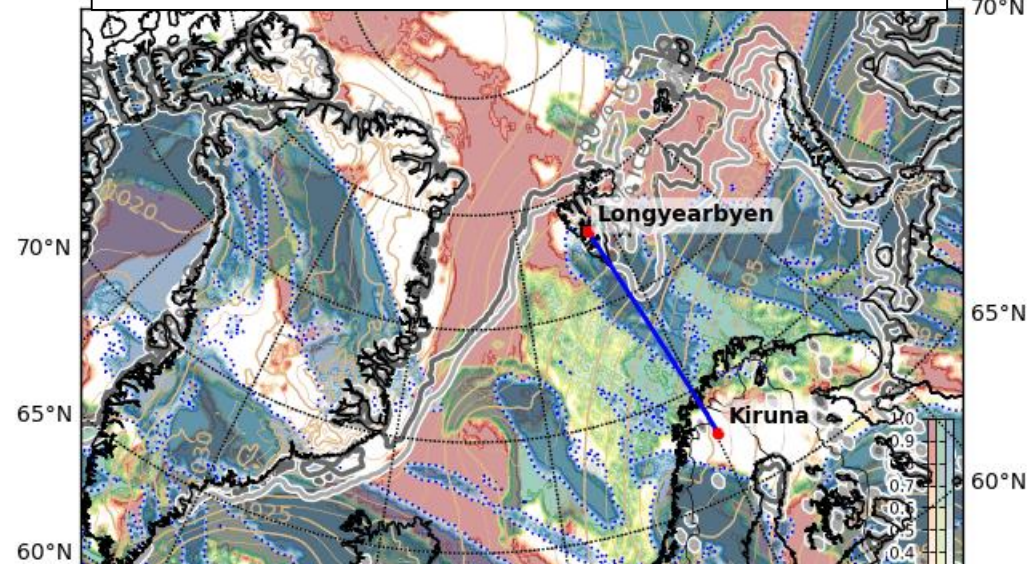


850 hPa Equ. pot. Temperature – 12 UTC

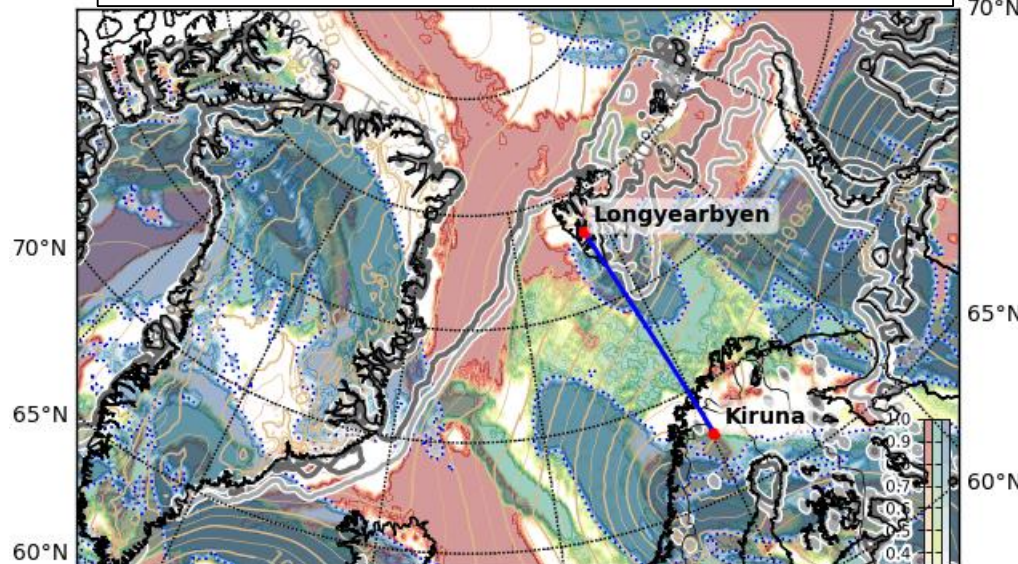


Monday, 2022-03-28 12 UTC

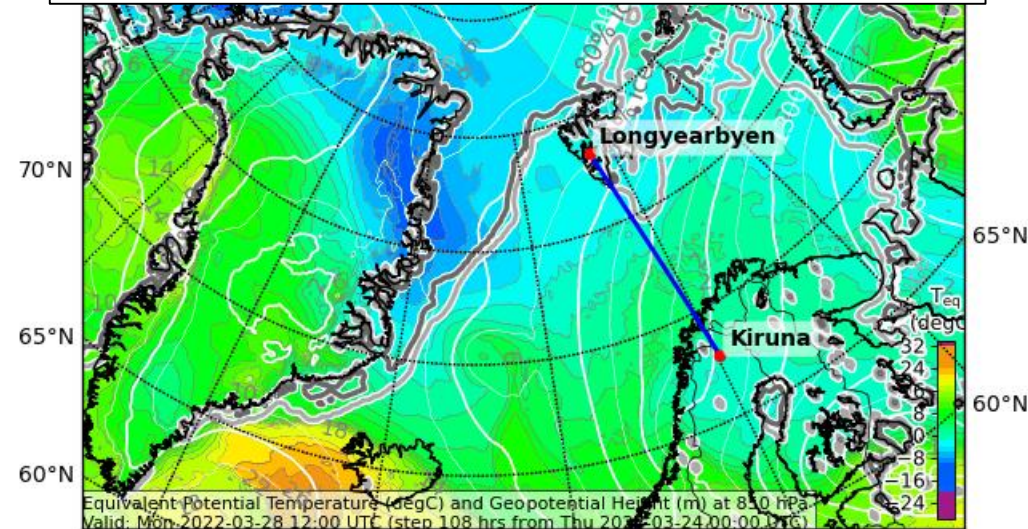
Total Cloud Cover – 00 UTC



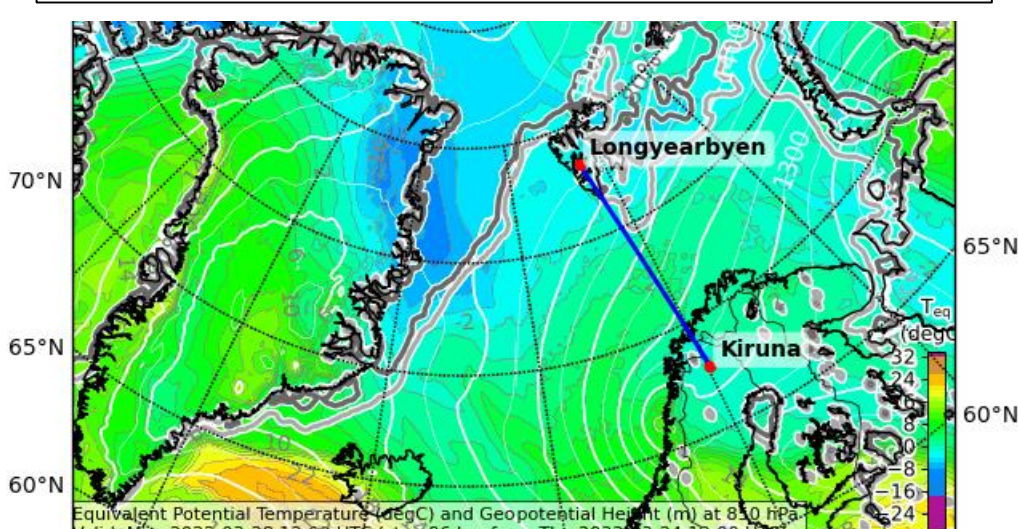
Total Cloud Cover – 12 UTC



850 hPa Equ. pot. Temperature – 00 UTC



850 hPa Equ. pot. Temperature – 12 UTC



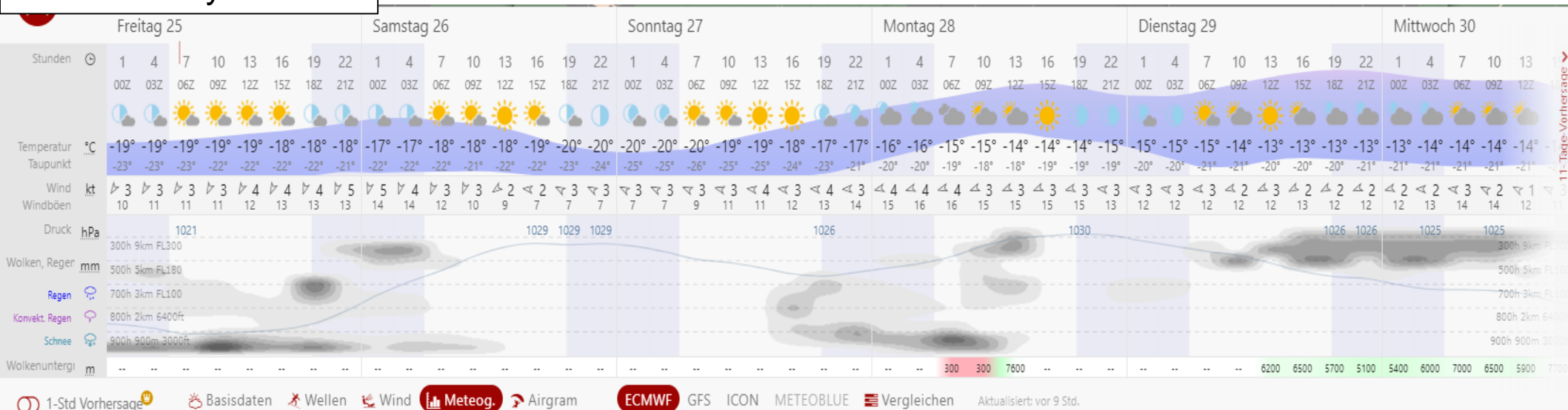
Equivalent Potential Temperature (degC) and Geopotential Height (m) at 850 hPa
Valid: Mon, 2022-03-28 12:00 UTC (step 108 hrs from Thu, 2022-03-24 00:00 UTC)

Equivalent Potential Temperature (degC) and Geopotential Height (m) at 850 hPa
Valid: Mon, 2022-03-28 12:00 UTC (step 96 hrs from Thu, 2022-03-24 00:00 UTC)

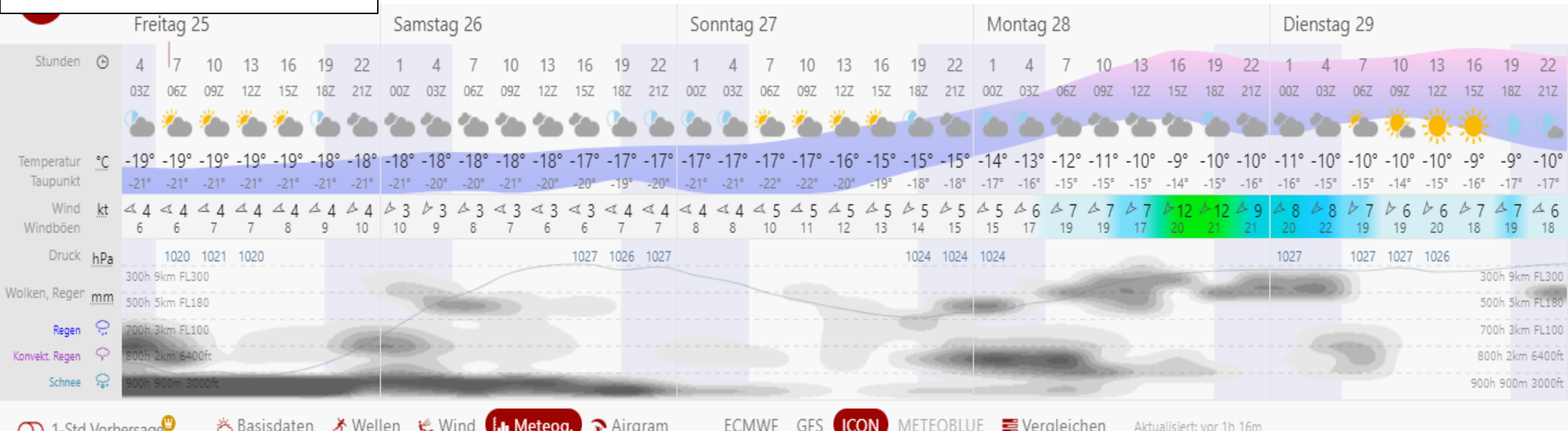
Airport meteograms & local weather at Svalbard

Longyearbyen.

ECMWF – y12 UTC



ICON – t00 UTC



Summary

Summary Weather Update 2022-03-25 9:00 LT

- **Saturday, 2022-03-26**

- East of Greenland high pressure system → narrow northerly flow over Fram Strait
- CCA weakens, CAA more located east of Svalbard

- **Sunday, 2022-03-27**

- Low pressure system coming from south disturbs the northerly flow → flow more northwesterly
- Low brings moisture → weak CAO

- **Monday, 2022-03-28**

- Polar low weakens for ECMWF
- no polar low in ICON
- Advection of aged warm air from Pacific through Central Arctic